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Dominik J. Schmidt

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EXAMINER

GREY, CHRISTOPHER P

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/930,827	Applicant(s) SCHMIDT, DOMINIK J.	
	Examiner Christopher P. Grey	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9 and 15-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 15, 24, 25, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over, Kobylinski et al. (US 7242938), hereinafter referred to as Kobylinski, in view of Scholefield et al. (US 5752193), hereinafter referred to as Scholefield

Claim 1 Kobylinski discloses sniffing for available cellular frequency channels of the plurality of cellular channels in a mobile station (**fig 1a 14 and 16, where sniffing as defined by the specification involves an RSSI detection for the determination of favorable/available channels, see Col 3 steps 2, 3 and 4).**

Kobylinski discloses reporting the measurement values back to a base station and making a handoff decision based on the sniffed channels (Col 3 step 7).

Kobylinski does not specifically disclose requesting an allocation of cellular frequency channels from the mobile station in response to the request from the mobile station and receiving an allocation of available cellular frequency channels at the mobile station in response to the request from the mobile station.

Scholefield discloses requesting an allocation of cellular frequency channels from the mobile station in response to the request from the mobile station (**fig 6 depicts a mobile sending a request and receiving a response).**

Scholefield discloses receiving an allocation of available cellular frequency channels at the mobile station in response to the request from the mobile station (**fig 6 depicts an allocation step in response to the request being made by the mobile station**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the handoff procedure as disclosed by Koylinski so as to perform a request and confirmation procedure as disclosed by Scholefield. The motivation for this modification is to enable the transmission of data over a channel. The motivation for this combination is to conserve on bandwidth (Col 3 lines 55-58).

Claim 15 Koylinski discloses transmitting cellular packet data conforming to one of the following protocols: cellular digital packet data, GPRS and EDGE (**see background, AMPS and GSM**).

Claim 24 Koylinski does not specifically disclose receiving from a user of the mobile station a request for a bandwidth sufficient to communicate at least one file.

Scholefield discloses receiving from a user of the mobile station a request for a bandwidth sufficient to communicate at least one file (**Col 4 lines 8-20, where the access request requests a certain number of channels depending on the size of data to be transmitted, where the data to be transmitted is equivalent to a file**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the invention of Koylinski so as to request a specific amount of bandwidth

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for communication as disclosed by Scholefield. The motivation for this combination is to conserve on bandwidth (Col 3 lines 55-58).

Claim 25 Kobylnski does not specifically disclose determining a number of channels for the allocation request based on the size of the at least one file

Scholefield discloses determining a number of channels for the allocation request based on the size of the at least one file (**Col 4 lines 8-13, determining how many channels based on size of data**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the mobile station as disclosed by Kobylnski to make the determination of the number of channels to request as disclosed by Scholefield. The motivation for this modification is to conserve on bandwidth (Col 3 lines 55-58).

Claim 27 Kobylnski does not specifically disclose requesting the allocation of cellular frequency channels comprising requesting an allocation of preferably adjacent cellular frequency channels (portable terminal demands the master microprocessor for available radio channels.

Scholefield discloses requesting the allocation of cellular frequency channels comprising requesting an allocation of preferably adjacent cellular frequency channels (portable terminal demands the master microprocessor for available radio channels (Col 4 lines 15-25, where the mobile station sends a request to all three time slots 1-3, where in fig 2, time slots 1-3 are clearly adjacent).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the invention of Kobylinski so as to perform a request and confirmation procedure as disclosed by Scholefield. The motivation for this modification is to enable the transmission of data over a channel. The motivation for this combination is to conserve on bandwidth (Col 3 lines 55-58).

2. Claims 2-7 and 9, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobylinski et al. (US 7242938) in view of Scholefield et al. (US 5752193) Rosener et al. (US 2002/002865), hereinafter referred to as Rosener.

Claim 2, 3 The combined teachings of Kobylinski and Scholefield do not specifically disclose communicating on a short-range radio channel.

Rosener discloses a wireless device communicating on a short-range radio channel such as Bluetooth (paragraph 0060).

It would have been obvious to one of the ordinary skill in the art at the time of the invention that a wireless device such as that disclosed by the combined teachings of Kobylinski and Scholefield is capable of communicating on a short range channel as is well known within the art.

Claim 4 The combined teachings of Kobylinski and Scholefield do not specifically disclose the applicants claimed characterizing the ambient radio environment and dynamically discovering available and active radio protocols including the short-range radio channel.

Rosener discloses characterizing the ambient radio environment and dynamically discovering available and active radio protocols including the short-range radio channel (paragraph 0060, 0067, 0101, 0118).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the repeater circuitry as disclosed by Rosener within the mobile station as disclosed by the combined teachings of Kobylinski and Scholefield. The motivation for this combination is to allow multi-protocol operations to support both Bluetooth and cellular communication (see abstract).

Claim 5, 6 The combined teachings of Kobylinski and Scholefield do not specifically disclose substituting the short-range radio channel with at least one of the allocated cellular channels if the short-range radio channel becomes unavailable.

Rosener discloses substituting the short-range radio channel with at least one of the allocated cellular channels if the short-range radio channel becomes unavailable (paragraphs 0018, 0125 and 0126).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the repeater circuitry as disclosed by Rosener within the mobile station as disclosed by the combined teachings of Kobylinski and Scholefield. The motivation for this combination is to allow multi-protocol operations to support both Bluetooth and cellular communication (see abstract).

Claim 7 The combined teachings of Kobylinski and Scholefield discloses sniffing for available frequency channels as disclosed in the rejection of claim 1, where it would have been obvious to one of the ordinary skill in the art at the time of the invention that some form of

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circuitry is necessary to perform such a function, and furthermore, more than one sniffing circuit may be used to accomplish the sniffing task, and this combination of circuits is deemed as a parallel combination.

Claim 9 The combined teachings of Kobylinski and Scholefield do not specifically disclose bonding the short-range radio channel with the allocated cellular frequency channels to increase bandwidth of data communication between the mobile station and the base station.

Rosener discloses bonding the short-range radio channel with the allocated cellular frequency channels to increase bandwidth of data communication between the mobile station and the base station (paragraph 0060, 0018-0119).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the repeater circuitry as disclosed by Rosener within the mobile station as disclosed by the combined teachings of Kobylinski and Scholefield. The motivation for this combination is to allow multi-protocol operations to support both Bluetooth and cellular communication (see abstract).

Claim 26 The combined teachings of Koyliski and Scholefield do not specifically disclose receiving a request from the user of a mobile station to bond the allocated cellular frequency channels and a short range radio channel.

Rosesner discloses receiving a request from the user of a mobile station to bond the allocated cellular (para 0060 and 0061, where the phone is designed so that a user enables a module, wherer when enabled and in a car, bonding takes place where the phone can communciate with teh bluetooth device and the base station).

It would have been obvious to one of the ordinary skill in the art at the time of the invention that a wireless device such as that disclosed by the combined teachings of Kobylinski and Scholefield is capable of communicating on a short range channel as is well known within the art.

3. Claims 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholefield et al. (US 5752193) in view of Rosener et al. (US 2002/002865).

Claim 16 Scholefield discloses at least one of the processing units (see fig 1, 106 for processor) calculating a number of cellular frequency channels to request from a base station (see fig 6 for requesting by mobile station to a base station) for transmission of a file from the mobile device, the number of cellular frequency channels based on a size of the file (Col 4 lines 8-13, determining how many channels based on size of data).

Scholefield discloses a radio frequency sniffer coupled to the at least one of the transceivers and an antenna coupled to the radio frequency sniffer (fig 1 shows a processor, antenna and transceiver. Furthermore, Col 4 lines 42-44 discloses the mobile station in fig 1 using a scanning procedure, equivalent to sniffing, where the function requires some means inherently disclosed within the mobile station).

Scholefield does not specifically disclose a long range transceiver unit communicating over a plurality of cellular frequency channels and a short range transceiver coupled to the processing units

Rosener discloses a reconfigurable processor core, comprising one or more processing units (T28 GSM phone which can assume the identity of phone 101 typically include a

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processor, section 0060); a long range transceiver unit coupled to the processing units, the long range transceiver unit communicating over a plurality of cellular frequency channels (RF interface to communicate with base stations outside of the car section 0060); a short range transceiver coupled to the processing units (Bluetooth interface to communicate inside the car section 0060) .

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine to long range and short range transceivers as disclosed by Rosener within the mobile station as disclosed by Scholfield. The motivation for this combination is to allow the phone to access a Bluetooth network and another long range network associated with the base station disclosed in para 0060.

Claim 17 Scholfield discloses the reconfigurable processor core including a plurality of digital signal processors (Col 7 lines 30-41, DSP's).

Claim 18 Scholfield does not specifically disclose the reconfigurable processor core including one or more reduced instruction set computer processors.

Rosener discloses the reconfigurable processor core including one or more reduced instruction set computer processors (**claim 17 and fig 9**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the RISC's as disclosed by Rosener within the mobile station as disclosed by Scholfield. The motivation for this combination is to reduce the size and complexity of the circuitry within the mobile station.

Claim 19 Scholfield does not specifically disclose router coupled to the one or more processing units.

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Rosener discloses a router coupled to the one or more processing units (to switch from direct RF interface to the use of Bluetooth interface , paragraph 0118-0119).

It would have been obvious to oen of the ordinary skill in the art at the time of the invention to combine the router as disclosed by Rosener within the mobile station as disclosed by Scholefield. The motivation for this combination is to switch from a long range to a short range interface, allowing adaptabililty.

Claim 20 Scholefield does not specifically disclose the short range transceiver being configured to communicate over a short range radio channel, further comprising a circuit configured to bind short range radio channel with the cellular frequency channels to increase bandwidth of data communication between the mobile device and a base station

Rosener discloses the short range transceiver being configured to communicate over a short range radio channel, further comprising a circuit configured to bind short range radio channel with the cellular frequency channels to increase bandwidth of data communication between the mobile device and a base station (**paragraphs 0060, 0118-0119**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the short range transceiver and the associated circuitry disclosed by Rosener within the mobile station as disclosed by Scholfield. The motivation for this combination is to increase bandwidth as disclosed within the claim itself.

Claim 21 Scholefield discloses an integrated circuit (**Col 7 lines 30-40**).

Scholefield does not specifically disclose the reconfigurable processor core comprising an integrated circuit formed on a single substrate including the one or more processing units, the long range transceiver, and the short range transceiver

Rosener discloses the reconfigurable processor core comprising an integrated circuit formed on a single substrate including the one or more processing units, the long range transceiver, and the short range transceiver (see figs 9 A and B).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine to long range and short range transceivers as disclosed by Rosener within the mobile station as disclosed by Scholfield. The motivation for this combination is to allow the phone to access a Bluetooth network and another long range network associated with the base station disclosed in para 0060.

Claim 22 Scholfield discloses a transceiver (**fig 1, 107**) requesting data communication with the base station over a plurality of channels (**Col 4 lines 18-20, send an access request on all 3 time slots**).

Scholfield does not specifically disclose wherein the plurality of cellular frequency channels and a short range radio channel are bonded together.

Rosener discloses the short range transceiver being configured to communicate over a short range radio channel, further comprising a circuit configured to bind short range radio channel with the cellular frequency channels to increase bandwidth of data communication between the mobile device and a base station (**paragraphs 0060, 0118-0119**).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the short range transceiver and the associated circuitry disclosed by Rosener within the mobile station as disclosed by Scholfield. The motivation for this combination is to increase bandwidth as disclosed within the claim itself.

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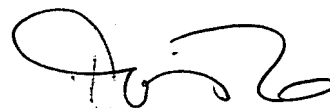
Claim 23 Scholefield discloses the reconfigurable processor core being configured to determine a number of channels to be used for the data communication based upon a user request for the data communication (**Col 4 lines 8-13, determining how many channels based on size of data**).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571 272 7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher Grey
Examiner
Art Unit 2616



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